

REMARKS

Upon entry of this Amendment, which amends Claims 7-15 and 19, Claims 1-19 remain pending in the present application.

In the June 17, 2004 Office Action, Claims 1, 3, 5-7, 16 and 17 were rejected under 35 U.S.C. § 102(e) for allegedly being anticipated by U.S. Patent Application Publication No. 2002/0118659 to Sakoda et al. (hereinafter referred to as "Sakoda et al."). Claims 8-15 and 19 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Claim 7 was objected to for containing a typographical error. Finally, Claims 2, 4 and 18 were objected to for being dependent upon rejected base claims, but were otherwise indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant respectfully requests reconsideration of the claims in view of the above amendments and the comments below.

***35 U.S.C. § 102(e) Claim Rejections – Claims 1, 3, 5-7, 16 and 17***

On pages 2-3 of the June 17, 2004 Office Action, Claims 1, 3, 5-7, 16 and 17 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Sakoda et al. For the following reasons Applicant respectfully disagrees.

The presently claimed invention claims systems (e.g. transmitters and receivers) and methods of modulating and processing signals, whereby data divided into N blocks is modulated in N parallel M-ary orthogonal keying (MOK) modulation channels. This characteristic of the invention is present in each of the independent claims of the

application, *i.e.*, in each of Claims 1, 8 and 12. A benefit of employing N parallel M-ary orthogonal keying modulation channels is that, if, for example,  $N=2$ , the bit rate of the communication system is doubled, while in the prior art doubling the number of codes only made it possible to add one bit. (*See, e.g.*, pp. 8-9 of the present application).

By contrast Sakoda et al. discloses a transmission method for a communication system in which communication may be performed without affecting other types of communication, even in a communication environment in which the same frequency band is used by adjacent cells of the communication system. According to one embodiment shown in FIG. 16, a symbol stream (S50) encoded by an encoding section (43) is multiplied by a spread code (C55). The symbol stream is divided and the same spreading code is applied to each of the divided symbol streams.

Contrary to what is asserted in the Office Action, Sakoda et al. does not teach parallel N M-ary orthogonal keying (MOK) modulation channels. The spreading codes in Sakoda are chosen independent of the information bits being spread, and are applied equally to each of the divided symbol streams to. However, M-ary orthogonal keying is a technique whereby a spreading function is used by selecting a specific code from among a series of codes according to a part of the information bits of the information bit stream. Clearly, Sakoda et al. do not disclose MOK modulation channels.

Accordingly, Sakoda et al. cannot be properly maintained as a reference that anticipates independent Claim 1 of the present application. Substantially the same reasons apply to the other independent claims (*i.e.*, Claims 8 and 12) of the present application, as they too include the characteristic of parallel M-ary orthogonal keying

(MOK) modulation and/or demodulation channels. Applicant requests, therefore, that the § 102(e) rejections of independent Claim, as allegedly being anticipated by Sakoda et al., be withdrawn.

***35 U.S.C. § 112, Second Paragraph, Claim Rejections – Claims 8-15 and 19***

In the Office Action, Claims 8-15 and 19 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. For the following reasons, Applicant respectfully disagrees.

The reasons provided in the Office Action as to why Claims 8-15 and 19 are indefinite were that the claims included “both product and process limitations,” and that the claims do “not provide competitors with an accurate determination of the Metes and Bounds of protection involved so that an evaluation of infringement may be ascertained with a reasonable degree of certainty.”

Although Applicant disagrees that a claim is indefinite simply because it includes both process and product limitations, and further disagrees that the metes and bounds of Claims 8-15 and 19 are unascertainable, Applicant has, nevertheless, amended the preambles of Claims 8-15 and 19. These clarifying amendments are believed to enhance the clarity of the claims by removing any doubt as to the subject matter being claimed. Specifically, the preambles of Claims 8-11 have been amended so that it is unequivocally clear that a “transmitter” is being claimed. Similarly, Claims 12-15 and 19 have been amended so that it is unequivocally clear that a “receiver” is being claimed.

Based on the following comments and clarifying amendments to Claims 8-15 and 19, Applicant respectfully believes that Claims 8-15 and 19 are clear and unambiguous. Applicant requests, therefore, that the § 112 rejections of Claims 8-15 and 19 be withdrawn.

***Remaining Dependent Claims***

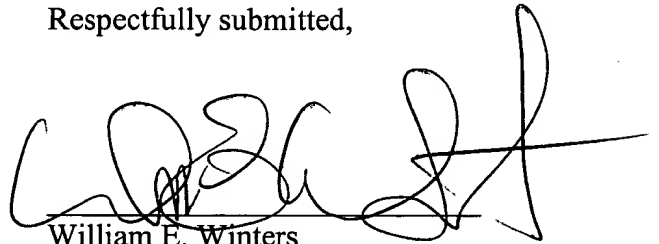
The other claims pending in the present application each depends from one of independent Claims 1, 8 or 12. Accordingly, they derive patentability as depending from what are allowable base claims. Applicant requests, therefore, that the rejections applied to the dependent claims also be withdrawn.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 408-282-1857.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W. E. Winters', written over a horizontal line.

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